AFP1100 / AFP1200
Fast Ethernet 100Base-FX
User's Manual

(9802-REV. D1)

1. Checklist

Before you start installing the AFP1100/1200, verify that the package contains the following items:

- AFP1100/1200 Board
- LAN Driver Diskette
- This User's Manual

Please notify your sales representative immediately if any of the aforementioned items is missing or damaged.

2. Overview

AFP1100/1200 is a PCI Fast Ethernet Board that fully complies with all IEEE 802.3u, 100Base-FX standards. Four LED indicators (LINK, ACT, COL and FDX) on the bracket will help to oversee the network/board link, activities, collision and full-duplex status.

3. AFP1100/1200 PCI Configuration

For motherboards with automatic PCI configuration:

- No specific setup is needed
- You can enter the system BIOS setup menu to view or specify the interrupt line of the PCI slots

For Motherboards with bus master & interrupt jumpers:

- Enable bus master operation in a selected PCI slot and select an interrupt (IRQ) level using the appropriate motherboard jumper.
- Enable I/O on the AFP1100/1200 PCI slot

4. PCI Bus System & Configuration

- Ensure that the PCI machine does support master slots, INT multiple sharing and timing compatibility. Do not install AFP1100/1200 in PCI slave slots. Please refer to your PCI system manual and select the appropriate configuration settings.
- When installing multiple AFP1100/1200 boards at the server station, you should correctly configure the IRQ settings of the PCI slot. Up to four AFP1100/1200 boards can be installed in a PCI file server running NetWare system. The AFP1100/1200 server boards share the same interrupt line with the driver supporting multiple INT services at a time. Each AFP1100/1200's IRQ should not conflict with that of other board.
- Operation in full or half-duplex (**Default**) mode is configured by LAN driver options. The operating mode should match the remote link device's working status.
- You must use **EMM386** version **4.49** or **higher**, and install both **DOS & EMM386** that came from the same DOS package to avoid software problems.

5. Network Connection

100Base-FX/TX network allows 512-bit time delay between any two node stations in a collision domain. The Fiber/TP cables with devices' bit-time delay (round trip) are as below:

100Base-FX		**100Base-TX**	
DTE < - > DTE	: 100	DTE < - > DTE	: 100
Class II Hub	: 92	Class II Hub	: 92
Fiber Cable	: 1.00/m	Cat. 5 TP Wire	: 1.12/m
DTE FX to DTE TX			: 100
100 Base-FX to 100 Base-TX Converter			: 56

The overall bit-time of Fiber/TP wires and devices must be within 512 bit in a segment. You may use Switching Hub to break up collision domain and extend the cabling distance.

- **Fiber Cable** (multi-mode) **Limitations:**

Half-duplex Class II Hub	Node to Node	: 205m
	Node to Hub	: 100m
	Hub to Hub	: 5m
Half-duplex Switching Hub	Node to Node	: 412m
	Node to Hub	: 412m
	Hub to Hub	: 412m
Full-duplex Switching Hub	Node to Node	: 2km
	Node to Hub	: 2km
	Hub to Hub	: 2km

For connecting to Router, Bridge, or Switching Hub, please refer to the device's Technical Manual.

6. Diagnostic LEDs & Boot ROM

The Link LED lights when fiber cable connection is good and the Act LED blinks to indicate the activity. Collision and full-duplex LED report the board's operating status.

To add the Remote Boot feature to a workstation, insert the Boot ROM into socket as shown below. Align the notch and pins on the Boot ROM with the notch and pin receptacles on the ROM socket. Gently push the Boot ROM into the socket, being careful not to bend the pins.

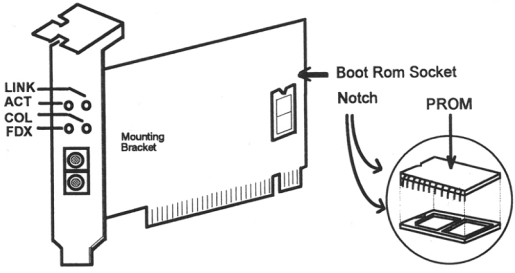

Fig. 1 Diagnostic LEDs and Boot ROM Socket

7. Technical Specifications

- **Standard :** IEEE 802.3u Fast Ethernet 100Base-FX
- **Connector :**
  - AFP1100 : SC Tx/Rx (multi-mode) connectors
  - AFP1200 : ST Tx/Rx (multi-mode) connectors
- **Cable :**
  Fiber 50/125, 62.5/125, 100/140 µm multi-mode
- **Data Transfer Mode / Speed :**
  - PCI bus master
  - Full or half-duplex (**Default**) mode
  - 100Mbps speed
- Link, ACT, COL, and FDX LEDs on the bracket
- **Power Requirement :** 2.0A @+5V
- **Ambient Temperature :** 0^{o} to 50^{o} C
- **Humidity :** 5% to 90%
- **PCB Dimensions :** 123 x 80 mm (L x H)
- **Emission :** FCC Part 15 Class A & CE Mark